

Table 1: Summary of Potential ARARs and TBCs

Standard, Requirement, Criteria, or Action	Potentially Applicable	Potentially Relevant and Appropriate	Citation	Description
POTENTIAL CHEMICAL-SPECIFIC ARARs				
FEDERAL				
National Ambient Air Quality Standards	No	No	40 CFR Part 50	Establishes ambient air quality standards for certain “criteria pollutants” to protect public health and welfare. Standard is:  1.5 micrograms lead per cubic meter maximum - arithmetic mean averaged over a calendar quarter
STATE OF COLORADO				
Colorado Air Pollution Prevention and Control Act	Yes	--	5 CCR 1001-14	Applicants for construction permits are required to evaluate whether the proposed source will exceed NAAQS.
Colorado Air Pollution Prevention and Control Act	No	Yes	5 CCR 1001-10 Part C (I) Regulation 8	Regulation No. 8 sets emission limits for lead from stationary sources at 1.5 micrograms per standard cubic meter averaged over a one-month period.

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POTENTIAL LOCATION-SPECIFIC ARARs

Resource Conservation and Recovery Act (RCRA), Subtitle D	No	No	40 CFR 257	Facilities where treatment, storage, or disposal of solid waste will be conducted must meet certain location standards. These include location restrictions on proximity of airports, floodplains, wetlands, fault areas, seismic impact zones, and unstable areas.
Executive Order No. 11990 Protection of Wetlands	No	No	40 CFR § 6.302(a) and Appendix A	Minimizes adverse impacts on areas designated as wetlands.
Executive Order No. 11988 Floodplain Management	No	No	40 CFR § 6.302 & Appendix A	Pertains to floodplain management and construction of impoundments in such areas.
Section 404, Clean Water Act (CWA)	No	No	33 USC 1251 et seq. 33 CFR Part 330	Regulates discharge of dredged or fill materials into waters of the United States.
Endangered Species Act	Yes	No	16 USC § 1531 et seq.; 50 CFR 200 and 402	Provides protection for threatened and endangered species and their habitats.
Wilderness Act	No	No	16 USC 1311; 16 USC 668; 50 CFR 53; 50 CFR 27	Limits activities within areas designated as wilderness areas or National Wildlife Refuge Systems.

POTENTIAL ACTION-SPECIFIC ARARs

FEDERAL

Criteria for Classification of Solid Waste and Disposal Facilities and Practices	Yes	--	40 CFR Part 257	Establishes criteria for use in determining solid wastes and disposal requirements.
Criteria for Classification of Hazardous Waste and Disposal Facilities and Practices	Yes	--	40 CFR 264	Establishes criteria for use in determining hazardous wastes and disposal requirements. Excavated soil would be classified as D004 hazardous waste if the arsenic concentration from the TCLP test was greater than 5.0 mg/L. Excavated soil would be classified as D008 hazardous waste if the lead concentration from the TCLP test was greater than 5.0 mg/L.

Table 1: Summary of Potential ARARs and TBCs

POTENTIAL ACTION-SPECIFIC ARARS (continued)

National Ambient Air Quality Standards	No	Yes	40 CFR Part 50	Establishes ambient air quality standards for certain "criteria pollutants" to protect public health and welfare. Standards are: 150 µg/m <sup>3</sup> for particulate matter for a 24 hour period; 50 µg/m <sup>3</sup> for particulate matter - annual arithmetic mean; 1.5 micrograms lead per cubic meter maximum - arithmetic mean averaged over a calendar quarter.
Hazardous Materials Transportation Regulations	Yes	--	49 CFR Parts 107, 171-177	Regulates transportation of hazardous materials.

STATE OF COLORADO

Hazardous and Solid Waste:

1. Solid waste determination	Yes	--	6 CCR 1007-3 Part 260 6 CCR 1007-3 Sect. 260.30-31 6 CCR 1007-3 Sect. 261.2 6 CCR 1007-3 Sect. 261.4	A solid waste is any discarded material that is not excluded by a variance granted under 40 CFR 260.30 and 260.31. Discarded material includes abandoned, recycled, and waste-like materials..
2. Solid waste classification.	Yes	--	6 CCR 1007-2, Section 1	If a generator of wastes has determined that the wastes do not meet the criteria for hazardous wastes, they are classified as solid wastes.
3. Determination of hazardous waste.	Yes	--	6 CCR 1007-3 Sect. 262.11 6 CCR 1007-3 Part 261	Wastes generated during soil excavation activities must be characterized and evaluated according to the following method to determine whether the waste is hazardous. Excavated soil would be classified as D004 hazardous waste if the arsenic concentration fro the TCLP test was greater than 5.0 mg/L. Excavated soil would be classified as D008 hazardous waste if the lead concentration from the TCLP test was greater than 5.0 mg/L.

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POTENTIAL ACTION-SPECIFIC ARARS (continued)

Air Emission Control:

4. Particulate emissions during excavation and backfill.	Yes	--	5 CCR 1001-3, Regulation 1, Section III (D) 5 CCR 1001-5, Regulation 3 5 CCR 1001-2, Section II	Colorado air pollution regulations require owners or operators of sources that emit fugitive particulates to minimize emissions through use of all available practical methods to reduce, prevent, and control emissions. In addition, no off-site transport of particulate matter is allowed. A fugitive dust control measure would be written into the Workplan for any remedial action in consultation with the State.
5. Emission of hazardous air pollutants.	No	Yes	5 CCR 1001-10, Regulation 8	Emission of certain hazardous air pollutants is controlled by NESHAPs. Excavation and backfill of soils could potentially cause emission of hazardous air pollutants. Regulation No. 8 sets emission limits for lead from stationary sources at 1.5 micrograms per standard cubic meter averaged over a one-month period.
6. Air emissions from diesel-powered vehicles associated with excavation and backfill operations.	Yes	--	5 CCR 1001-15, Regulation 12	<p>Colorado Diesel-Powered Vehicle Emissions Standards for Visible Pollutants apply to motor vehicles intended, designed, and manufactured primarily for use in carrying passengers or cargo on roads, streets, and highways, and state as follows:</p> <p>1) No person shall emit or cause to be emitted into the atmosphere from any diesel-powered motor vehicle weighting 7,500 pounds and less, empty weight, any air contaminant, for a period greater than five (5) consecutive seconds, which is of such a shade or density as to obscure an observer's vision to a degree in excess of 40% opacity.</p> <p>2) No person shall emit or cause to be emitted into the atmosphere from any diesel-powered motor vehicle weighing more than 7,500 pounds, empty weight, any air contaminant, for a period greater than five (5) consecutive seconds, which is of such a shade or density as to obscure an observer's vision to a degree in excess of 35% opacity, with the exception of Subpart "C".</p>

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POTENTIAL ACTION-SPECIFIC ARARS (continued)

6. Air emissions from diesel-powered vehicles associated with excavation and backfill operations (continued).	Yes	--	5 CCR 1001-15, Regulation 12	<p>3) Any diesel-powered motor vehicle exceeding these requirements shall be exempt for a period of 10 minutes if the emissions are a direct result of a cold engine startup and provided the vehicle is in a stationary position.</p> <p>4) These standards shall apply to motor vehicles intended, designed, and manufactured primarily for travel or use in transporting persons, property, auxiliary equipment, and/or cargo over roads, streets, and highways.</p>
7. Odor emissions.	Yes	--	5 CCR 1001-4, Regulation 2	<p>Colorado odor emission regulations require that no person shall allow emission of odorous air contaminants that result in detectable odors that are measured in excess of the following limits:</p> <p>For residential and commercial areas - odors detected after the odorous air has been diluted with seven more volumes of odor-free air.</p>
8. Smoke and opacity.	No	Yes	5 CCR 1001-3, Regulation 1 Sect. II.A	Excavation and backfilling of soils must be conducted in a manner that will not allow or cause the emission into the atmosphere of any air pollutant that is in excess of 20% opacity.
9. Ambient Air Standard for Total Suspended Particulate Matter.	Yes	--	5 CCR 1001-14	Air quality standards for particulates (as PM <sub>10</sub> ) are 50 µg/m <sup>3</sup> ; annual geometric mean, 150 µg/m <sup>3</sup> 24 hour.
10. Ambient Air Standard for Lead.	Yes	--	5CCR 1001-10, Regulation 8	Monthly air concentration must be less than 1.5 µg/m <sup>3</sup> .

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POTENTIAL ACTION-SPECIFIC ARARS (continued)

11. Noise abatement.	Yes	--	C.R.S., Section 25-12-103	<p>The Colorado Noise Abatement Statute provides that:</p> <p>a. Applicable activities shall be conducted in a manner so any noise produced is not objectionable due to intermittence, beat frequency, or shrillness. Noise is defined to be a public nuisance if sound levels radiating from a property line at a distance of twenty-five feet or more exceed the sound levels established for the following time periods and zones:</p> <table><tr><td>Zone</td><td>7:00 a.m. to next 7:00 p.m.</td><td>7:00 p.m. to next 7:00 a.m.</td></tr><tr><td>Residential</td><td>55 db(A)</td><td>50 db(A)</td></tr><tr><td>Commercial</td><td>60 db(A)</td><td>55 db(A)</td></tr><tr><td>Light Industrial</td><td>70 db(A)</td><td>65 db(A)</td></tr><tr><td>Industrial</td><td>80 db(A)</td><td>75 db(A)</td></tr></table> <p>b. In the hours between 7:00 a.m. and the next 7:00 p.m., the noise levels permitted in Requirement a. (above) may be increased by ten decibels for a period of not to exceed fifteen minutes in any one-hour period.</p> <p>c. Periodic, impulsive, or shrill noises shall be considered a public nuisance when such noises are at a sound level of five decibels less than those listed in Requirement a. (above).</p> <p>d. Construction projects shall be subject to the maximum permissible noise levels specified for industrial zones for the period within which construction is to be completed pursuant to any applicable construction permit issued by proper authority or, if no time limitation is imposed, for a reasonable period of time for completion of the project.</p> <p>e. For the purpose of this article, measurements with sound level meters shall be made when the wind velocity at the time and place of such measurement is not more than five miles per hour.</p>	Zone	7:00 a.m. to next 7:00 p.m.	7:00 p.m. to next 7:00 a.m.	Residential	55 db(A)	50 db(A)	Commercial	60 db(A)	55 db(A)	Light Industrial	70 db(A)	65 db(A)	Industrial	80 db(A)	75 db(A)
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12. Transportation of Hazardous Waste.	Yes	--	8 CCR 1507	Rules regarding Transportation of Hazardous Substances.															
Institutional Controls:																			
Environmental Covenant	Yes	--	CRS 25-15-317 thru 327	Requires the execution of an environmental covenant whenever an environmental remediation project implemented pursuant to a cleanup decision reached on or after July 1, 2001, does not achieve unrestricted use due to residual contamination that is not safe for all uses and/or the incorporation of an engineered structure requiring monitoring, maintenance, or operation.															

Table 1: Summary of Potential ARARs and TBCs

Comment

National Ambient Air Quality Standards (NAAQS) are implemented through the New Source Review Program and State Implementation Plans (SIPs). The federal New Source Review Program addresses only major sources. Emissions associated with any proposed remedial action at OU-2 would be limited to fugitive dust emissions associated with earth moving activities during construction. These activities will not constitute a major source. Therefore, attainment and maintenance of NAAQS pursuant to the New Source Review Program are not applicable. See Colorado Air Pollution Prevention and Control Act concerning the applicability of requirements implemented through the SIP. NAAQS are implemented through the SIP.

Construction activities associated with potential remedial actions at the site would be limited to generation of fugitive dust emissions. Colorado regulates fugitive emissions through Regulation No. 1. Compliance with applicable provisions of the Colorado air quality requirements would be achieved by adhering to a fugitive emissions dust control plan prepared in accordance with Regulation No. 1. This plan will discuss monitoring requirements, if any, necessary to achieve these standards.

Regulation is for stationary sources and is therefore not applicable. However, it is relevant and appropriate. Applicants are required to evaluate whether the proposed activities would result in an exceedance of this standard. The potential remedial actions at the site are not expected to exceed the emission levels for lead, although some lead emissions may occur. Compliance with the requirements of Regulation No. 8 would be achieved by adhering to a fugitive emissions dust control plan prepared in accordance with Regulation No. 1. This plan will discuss monitoring requirements, if any, necessary to achieve these standards.

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Applicable only if interim disposal is conducted or if an onsite repository is necessary. However, because onsite disposal is not a component of any alternative under consideration, this regulation is not an ARAR.
Not ARAR as any remedial action would occur where there are no wetlands. Also onsite disposal is not a component of any alternative under consideration.
Not ARAR because any remedial action does not require the occupation or modification of floodplains.
The Act is not an ARAR. Onsite disposal which affects waters of the US is not a component of any alternative under consideration.
Due to the urban nature of OU-2, threatened or endangered species are highly unlikely to be present.
These types of areas are not present at OU-2 and therefore the Act is not an ARAR.
Would be applicable if solid wastes are generated (e.g., excavated soil).
Would be applicable if hazardous wastes are generated.



Table 1: Summary of Potential ARARs and TBCs

NAAQS are implemented through the New Source Review Program and State Implementation Plans (SIPs). The federal New Source Review Program addresses only major sources. Emissions associated with any remedial action at OU-2 would be limited to fugitive dust emissions associated with earth moving activities during construction. These activities would not constitute a major source. Therefore, attainment attainment and maintenance of NAAQS pursuant to the New Source Review Program would not be applicable. However, the standards relating to particulates and to lead would be relevant and appropriate.

Applicable only if any remedial action involves off-site transportation of hazardous materials and to any alternatives that include on-site transportation of contaminated soil on public streets. The regulations affecting packaging, labeling, marking, placarding, using proper containers, and reporting discharges of hazardous materials would be potential ARARs.

Applicable to alternatives where contaminated soil would be excavated and disposed.

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Applicable to alternatives where soil would be excavated, moved, stored, transported, or redistributed.

Regulation is for stationary sources and is therefore not applicable. However, it is relevant and appropriate. Applicants are required to evaluate whether the proposed activities would result in an exceedance of this standard. Potential remedial action at OU-2 is not expected to exceed the emission levels for lead, although some lead emissions may occur. Compliance with the requirements of Regulation No. 8 would be achieved by adhering to a fugitive emissions dust control plan prepared in accordance with Regulation No. 1. This plan would discuss monitoring requirements, if any, necessary to achieve these standards.

Applicable to alternatives that include transportation of soil. Would not be an ARAR for transportation of soil off-site.

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Applicable to alternatives that include transportation of soil.  
Would not be an ARAR for transportation of soil off-site.

Applicable to alternatives that include construction  
activities in residential and commercial areas.

Regulation specifically exempts fugitive emmissions  
generated by excavation/backfilling activities. Relevant and  
appropriate to remedial alternatives that include  
excavation and backfilling of soils.

Applicable to remedial alternatives that would include actions  
that generate fugitive dust.

Applicable to remedial alternatives that would include actions  
on contaminated soil that generate fugitive dust. Activities  
envisioned to be conducted as part of the potential remedial  
alternatives are not part of any standard industrial code and  
therefore do not meet the definition of a stationary source.

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Applicable to alternatives that would include construction activities.

Potentially applicable to alternatives that include off-site transportation of contaminated soil or on-site transportation on public streets.